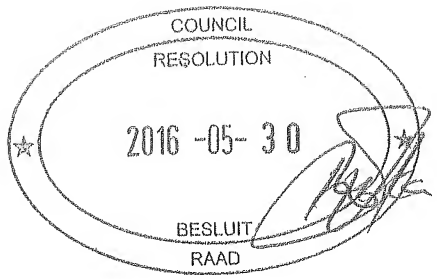

Reference No 11609/1
Makgorometje Makgata (0940)
SPECIAL COUNCIL: 30 May 2016

3. CITY PLANNING AND DEVELOPMENT DEPARTMENT
BUILT ENVIRONMENT PERFORMANCE PLAN 2016/17
(From the Executive Committee: 16 May 2016 and the Mayoral Committee: 18 May 2016)

1. PURPOSE

The purpose of the report is to seek approval for the City of Tshwane Built Environment Performance Plan 2016/17 for submission to National Treasury.

The BEPP 2016/17 is prepared in terms of the provisions of the Division of Revenue Act and must be submitted to National Treasury on 31 May 2016.

2. STRATEGIC OBJECTIVES

2.1 Provide Sustainable Service Infrastructure and Human Settlement Management

2.2 Promote Shared Economic Growth and Job Creation

2.3 Ensure Sustainable, Safer Cities and Integrated Social Development

2.4 Promote Good Governance and Active Citizenry

2.5 Improved Financial Sustainability

2.6 Continued Organizational Development, Transformation and Innovation

3. BACKGROUND

Built Environment Performance Plans (BEPPs) were first introduced in the 2011/12 financial year as an eligibility requirement in respect of the Urban Settlements Development Grant (USDG). However BEPPs became one of the eligibility requirements for the Integrated City Development Grant (ICDG) as legislated in the Division of Revenue Act (DORA) (Act 2 of 2013) 2014/15 (first introduced 2013/14). The draft BEPP 2016/17 is attached as Annexure A.

The BEPP is a brief, strategic overview of the built environment that will be used to enhance inter-governmental relations aimed at improving the performance of metropolitan built environments. It is a city-level plan formulated and approved by the metro, and it complements existing statutory plans and compliance with legal requirements – it does not replace such plans.

The goal of the BEPP is the development of more inclusive, liveable, productive and sustainable urban built environments in metropolitan municipalities. The purpose is therefore to provide a financial incentive for metropolitan municipalities to integrate and focus their use of available infrastructure investment and regulatory instruments to achieve a more compact urban spatial form. The desired outcomes are the improved spatial targeting and sequencing of public investments in the urban built environment to achieve a more compact, inclusive, productive and sustainable urban spatial form.

With an understanding of the Capital Investment Framework (CIF) and the processes that it will facilitate for the city, it is clear that the CIF is the vessel that is also required to respond to the goals, objectives and outcomes of the BEPPs as prescribed by National Treasury. While the focus of the 2014 BEPP processes was on planning for spatial transformation, in 2015 the focus shifted to accelerating the implementation of catalytic interventions. The work started in the last two years will be refined and consolidated. There are new focus areas 2016/17 which will enable cities to progress further along the built environment value chain.

The BEPP is a requirement of the DORA in respect of infrastructure grants related to the built environment of metropolitan municipalities. It remains one of the eligibility requirements for the ICDG that is an incentive grant that rewards the application of infrastructure grants in terms of a spatial targeting approach at a sub-metropolitan level. The BEPP is thus also an instrument for compliance and submission purposes for the following infrastructure grants:

- ICDG – Integrated City Development Grant, Schedule 5B (specific purpose allocations to municipalities);
- USDG – Urban Settlements Development Grant, Schedule 4B (supplements municipal budgets);
- HSDG – Human Settlements Development Grant, Schedule 5A (specific purpose allocations to provinces);
- PTIG – Public Transport Infrastructure Grant, Schedule 5B (specific purpose allocations to municipalities);
- NDPG – Neighbourhood Development Partnership Grant
  - Schedule 5B (specific purpose allocations to municipalities) Capital Grant;
  - Schedule 6B (allocation-in-kind to municipalities for designated special programmes) TA;
- INEP – Integrated National Electrification Grant, Schedule 5B (specific purpose allocations to municipalities

It is the expectation from National Treasury that it would take at least 3 years to establish a credible and funded BEPP. The content requirements of the 2015/16 – 2017/18 BEPP seek to refine, enhance and consolidate the content of the baseline BEPP adopted in 2014/15. It is therefore important that Tshwane remains in the forefront of this process and be proactive in capitalizing optimally from the enabling environment that is created by the Tshwane Capital Planning System (CaPS) that links the business planning process synchronising the formulation of the BEPP, Budget, IDP and SDBIP.

This report is the City of Tshwane Draft BEPP 2016/17 which is submitted in line with the BEPP Guidance Note 2016/17. This report is submitted in terms of the Council Approved IDP Process Plan 2016/2017.

The Final Draft BEPP 2016/17 is herewith tabled together with the Draft IDP and Budget 2016/17 to the Mayoral Committee to obtain Council approval to meet the 31 May 2016 DORA prescribed timeline for submission to National Treasury as the only business plan for the release of grant funding.
The BEPP is a summary and culmination of outcomes of a multitude of spatial planning documents within the municipality, and these plans are spatial strategies that ensure that implementation on the ground is guided by a spatial framework that is informed by National and provincial strategies and policies and those at city level, namely, Tshwane Vision 2055, IDP, MSDF, RSDF and LSDF. Each of these plans have a spatial imperative that the city needs to achieve in the short, medium and long-term.

Please see Figure 1. All Figures referred to is attached as Annexure B.

This submission provides the city's approach towards spatial targeting with primary focus on the movement system as the key spatial restructuring element of the built environment. The city is currently undertaking a scientific growth forecasting assignment commissioned by the CSIR, which will inform the formulation of the Tshwane Growth Management Perspective. As per BEPP Council Resolution May 2014, a Tshwane Capital Planning System (CaPS) has been procured, which is the business planning and decision support tool ensuring that capital projects within the city are evaluated according to quantitative, qualitative and spatial transformation criteria as part of the formulation of the annual developmental (capital) budget.

In the compilation of this report, cognisance was taken of the current institutional challenges and processes including but not limited to the issues and flagship projects that was raised as part of the State of the City Address. This process was enabled by the Tshwane Capital Planning System (CaPS), which is a capital investment planning tool for providing business intelligence, data validation, project synchronisation and prioritisation, and project progress related information.

CaPS will ensure an inclusive approach towards the transformation of the City as envisaged by the Tshwane Vision 2055. Programme and project synchronisation both at municipal and other spheres of government is essential, and it is through the implementation of CaPS that seamlessness will be ensured at various stages of project planning and implementation. An comprehensive prioritisation model enshrined in CaPS, built form the City's needs, contains components that will enhance compliance with governance issues, spatial transformation matters, impact and efficiencies and gains for all identified programmes and projects. All spatial priorities and mayoral priority programmes for investment have been categorised, included and mapped for all the seven regions within CaPS.

Please see Figure 2.

Introduction to the draft BEPP 16/17

The current Built Environment Performance Plan (BEPP) 2015_2016 was adopted by Council in May 2015. The Division of Revenue Act (DORA) 2015_2016 requires that for the financial year 2016_2017, a draft BEPP 2016_2017 is submitted to National Treasury by 03 November 2015. From a local government capital investment planning cycle, which is informed by the Municipal Systems Act, Act (32 of 2000) and Municipal Finance Management Act, Act 56 of 2003, the submission of the first draft BEPP 2016_2017 is at quarter 2 of the municipal financial planning cycle.

The premise for the compilation of the draft BEPP is therefore the BEPP/IDP/Budget 2015_2016 meaning that there will be no significant changes in the content of the report. But rather a positional iteration on the approach the city will undertake to inform its 2016_2017 capital budget in line with all mandatory legislative imperative. Our approach seeks to refine, enhance and consolidate the baseline established in 2015_2016, which will be discussed later in this report. Furthermore, the Budget Benchmarking Review undertaken in May 2015 by National Treasury in respect of the city's BEPP/IDP/Budget 2015_2016 will be used as a guide for the refinement with the objective of establishing a credible and funded BEPP in the next 3 years.

Our aim is to remain in the forefront of this process and be proactive in capitalizing optimally from the enabling environment that is created by the Tshwane Capital Planning System (CaPS).

The key focus will be on the security of revenue, improved service delivery, initiatives geared towards remaking of the Capital City through urban revitalization, catalytic economic projects and good governance.

Approach to the draft BEPP 2016/17

The baseline for 2016/17 as mentioned above is based on the 2015/16 SOCA Programme

LAST MILE PROGRAMME ON SOCA COMMITMENTS

SUSTAINABLE MOBILITY AND INTEGRATED PUBLIC TRANSPORT
• TRT Line 1 A Stations • TRT Line 2 A NMT • CNG Buses • TBS Turnaround Strategy – Introduction of bus services to Bronkhorstspruit • Scheduled flights at Wonderboom Airport – overall expansion strategy • Addressing road backlogs R672 mil eradication of backlogs (R347 mil) – 51,6% - North (Soshanguve, Mabopane, Winterveld) • NMT for Shovakalula Bicycle Project • LRT Feasibility Study

INCREASE ACCESS TO SOCIAL FACILITIES AND PUBLIC PARTICIPATION AND SOCIAL COHESION
• Cullinan Library Park • 6 libraries to be constructed by Province

ECONOMIC DEVELOPMENT – INFRASTRUCTURE DEVELOPMENT FOR INFORMAL SECTOR
• Erection of informal trading stalls at Pretoria North and Cullinan • BPO Park – Hammanskraal • Brick making facility • Paper Towel Manufacturing Facility • Fresh produce facility • Development of Community car wash • Informal Trader Market (Inner City)

KEY STRATEGIC CATALYTIC PROJECTS
• African Gateway • West Capital Phase 1 and 2 • Symbio City • East Capital • Tshwane House • Inner City Revitalisation: Government Boulevard • Inner City Revitalisation: Caledonian Inner City Park

BASIC WATER AND SANITATION SERVICES
• R350 mil for basic water and sanitation services, inclusive of R90 mil for replacement and upgrade of waste water treatment works, R90 mil for the refurbishment of networks and backlogs R18 mil for replacement of worn-out pipes • New water connections: R19 mil for new water connections, R20,5 mil for sanitation services • War on leaks – R12 mil devoted on war on leaks programme

ELECTRICITY
• ELECTRIFICATION OF NEWLY FORMALISED AREAS : Refilwe Manor Mahube Valley Ext 15 Nelmapius Ext 21 and 24 Zithobeni Ext 9 • PUBLIC LIGHTING : Installation of streetlights and high mast lights approximately R70 mil • SUB-STATIONS: Infrastructure upgrading (Bulk and existing sub-stations) R100 mil (Kwagga, Rietvlei, Njala, Buffel, Hartebeespoort, New Wildebees, Wildebees) • Refurbishment of Power Stations: Rooiwal and Pretoiria West

IT CONNECTIVITY AND GROWTH: PROMOTING SOCIAL INCLUSION AND INCLUSIVE GROWTH
• Rollout of free Wi-Fi

HEALTH AND SOCIAL DEVELOPMENT
• NHI Pilot: Upgrading of 3 Clinics (Gazankulu, Zithobeni and Soshanguve) • Investment towards ECD initiatives: R7 in ECDs

SUSTAINABILITY ENERGY
• Innovative Pilots – Pilot Mini-Hydro generation • Renewable Energy Drive – Agro-politan City (Food and energy centre) • Reliability of future energy supply • 20 MW solar farm • Replacement of mercury, sodium vapour lamps and fixtures with energy efficient induction • LED and solar powered street lighting (R70 mil) • Up to 6 MW/H biomass powered electricity generated • Natural gas exploration to be investigated • Reduction of carbon footprint - Kwaggasrand

ENVIRONMENTAL MANAGEMENT
• 2 Parks per ward - additional 23 parks to be developed • Provision of cemeteries (R62 mil allocated) • Provision of cemeteries – 20 ha Tshwane North Cemetry

HOUSING AND HUMAN SETTLEMENTS
• Partnering with the Gauteng Department of Human Settlements: Developing 180 875 housing units over the next 5 years. Delivering 5 000 serviced stands June 2016 • Kopanong (water and sewer) • Soutpan (Phase 2) • Mabopane Ext 1 (water and sewer) • Winterveldt (water and sewer) • Kudube 5 (water and sewer)

- Kudube 9 (water and sewer)
- Delivering 5 000 serviced stands (Densification Programme)
- Fortwest 4 & 5 (water and sewer)
- Lotus Gardens (water and sewer)
- Zandfontein (water and sewer)
- Kirkney/Andeon South (water and sewer)
- Olievenhoutbosch 60
- Garsfontein
- Zithobeni 8 and 9
- Zithobeni Heights
- Commitment to fund the installation of services to 5 355 affordable rental accommodation across Tshwane. The 5 355 rental units will be delivered over a period of 3 years
- Fort West Ext 4 (1 256 units)
- Lotus Gardens Ext 2 (1 000 units)
- Zandfontein (1 159 units)
- Chantelle Ext 39 (720 units)
- Townlands (900 units)
- Timberlands (320 units)
- Thembelihle Village (733 units): Implemented by Yeast City Housing)
- Nellmapius Ext 22 Provincial project (550 units)
- Affordable rental incubator programme projects (585 units)
- Investment of R50 mil in developing 200 rental units in Mamelodi and Saulsville
- Formalisation of informal settlements for 100 000 people

4. DISCUSSION

Strategic Review of the Built Environment

Current Performance of the Built Environment

Tshwane's Provincial Context

Premier David Makhura during his maiden State of the Province Address stated that his administration has adopted multi-pillar programme of radical transformation, modernisation and reindustrialisation of Gauteng that will be actively pursued over the next five to fifteen years. In so doing, decisive steps will be taken to make Gauteng an integrated city-region characterised by social cohesion and economic inclusion.

An issue that particularly resonates with this BEPP, is the intention of the provincial government to radically transform the spaces that people live in by connecting and integrating places of work and human settlements. It was said, that in the next five to fifteen years, Gauteng intends to turn the tide against the current spatial patterns of apartheid in pursuit of spatial transformation and modernisation of human settlements in the province. Steps will be taken to transform the spatial configuration and landscape of Gauteng province through better and coordinated land use management and spatial development.

The plan is that the provincial government will work with municipalities and state-owned enterprises to ensure that a new built environment and inclusive spatial landscape emerges across the Gauteng city-region.

Although many of these aspects are also intonated and included in Tshwane's Vision 2055, albeit in a different guise, it is important to assimilate these objectives into the strategic planning that is required to propel the City of Tshwane towards achieving its own Vision whilst simultaneously collaborating with the Provincial objectives. The pillars as provided in the SOPA will be used a gauge to measure the extent to which the proposed transport solution contained in this document, will contribute towards achieving these goals.

The GCR is faced with two key challenges in relation to its spatial economy: a spatial mismatch between places of work and the areas in which people live, and a skills mismatch between skills held by those within the city-region, and available employment opportunities. For Tshwane, it shows that most (50% of the (formal) job opportunities still resides in the CBD of Tshwane with various emerging nodes in the east and the south of Tshwane.

Tshwane's Basic Metrics

This City of Tshwane is among the largest cities, being the 3rd largest in land mass the world geographically – it covers an area of approximately 630,000 hectares. The total population of the City of Tshwane (CoT) is estimated at 2.9 million. This municipality makes the second largest contribution to the provincial GDP at 27%, with the tertiary sector's government, social & personal services and finance and business services in the forefront. Many national government departments, foreign embassies and tertiary educational institutions are housed in the city. The municipality is also known as a manufacturer and assembler of passenger vehicles that are mainly produced in the Rosslyn and Pretoria East areas. According to the Automotive Industry Development Centre, the municipality produces 40% of South Africa's automotive output. The municipality exports more than it imports and also has a growing tourism sector that contributes to job creation and investment.

Tshwane's Demographic Overview

The population of Tshwane as recorded by the 2011 census amounts to 2,921,488 people in total. Between the ages of 20 and 29, there is a significant portion of the overall population. This is also the segment of the population that is regarded as the main entrants into the job-market.

There is also a large component of tertiary learners in this segment that are furthering their studies at institutions such as UNISA, Pretoria University, University of Pretoria facility of Veterinary Science, ARC-Onderstepoort Veterinary Institute and Tshwane University of Technology. The jump in population from the 15-19 group to the next group is substantial. It suggests that there is indeed an influx of people between the ages of 20 and 29 from outside the boundaries of Tshwane. This influx seems to support the assumption that at least some of this can be attributed to the tertiary institutions in Tshwane and others are likely to simply be job-seekers.

Although the needs to enhance the economy of Tshwane has been well articulated on many levels, the specific triggers or mechanisms to unlock this growth still needs to be well understood. From this analysis, it is clear that the tertiary education sector in Tshwane is a very important aspect that needs to be enhanced, enabled and supported by the City. This support can take many forms such as transport, the recent roll-out of free wifi at certain areas, etc. Although a further, obvious aspect of focus should be job-creation, the data derived from the population age distribution seems to suggest that a focus on entrants into the job market of Tshwane could potentially yield significant and immediate benefits to the local economy. Artisans training programmes and apprenticeship programme should be considered and ways to support and enable this to happen.

A total of 86% of Tshwane's migrants hail from other areas within the Gauteng Province. Out of other provinces, migrants from Limpopo Province are most prevalent followed by migrants from outside of South Africa. Migrants from North West Province prefer to settle in Planning Region 1 whereas migrants from Limpopo Province prefer to settle in Planning Region 3.

It is important to note the population growth rate of Tshwane in relation to other major cities in South Africa. Tshwane sports the second highest growth rate among the major cities of South Africa. This should not a be a surprising finding due to Tshwane's strategic location in the economic hub of the country and in close proximity of two other major metros and the main nodes of job opportunities within the country.

The challenge for Tshwane going forward would be not to simply respond to these trends by trying to keep up with service delivery and housing, but to find ways of channelling the settlement of people in an economically sustainable way to alleviate some of the financial burden to accommodate the rampant growth. A comprehensive and integrated growth and infrastructure investment strategy should seek to realise these outcomes.

Socio Economic Overview

The municipality's main economic sectors are community services and government, followed by finance and manufacturing. Metal products, machinery and household products are the largest sub-sectors within manufacturing. Tshwane's economy contributed 27% to Gauteng's GDP and 9% to the national GDP in 2011. Also in the same year, Tshwane contributed 22.2% to South Africa's total exports and 15.9% to its total trade.

Pretoria is the largest contributor, with an overwhelming 47 per cent of total output (which is largely dominated by general government services), followed by Centurion (16 per cent, which is predominantly due to finance, insurance, real estate and business services), Soshanguve Part 1 (8 per cent, also a general government services hub) and Mamelodi (7 per cent, also a general government services hub). Further on in this section of the report, projected growth is showing a dramatic shift in growth towards emerging nodes whilst the CBD, although showing growth as well, remaining fairly static relative to the growth that will be observed at some of the other nodes.

With respect to the predominant industries in Tshwane, general government services industry is the largest economic role-player nearly a third of total Gross Value Added (GVA). This is closely followed by the finance, insurance, real estate and business services sector (25 per cent of GVA), and the manufacturing industry (15 per cent). This clearly highlight one of Tshwane's major economic strengths – that of being a government hub on a national level. Strategies around the investing in the future growth of Tshwane therefore need to seek ways to continue to make it attractive for government to reside and grow its presence in Tshwane. Recently, for instance, the Pan African Parliament was established in Midrand in Johannesburg. Tshwane needs to find ways to enhance and entrench the attractiveness of the City as being the government hub of South Africa.

Going forward, ways need to be found to start connecting the main hub of the CBD with some of the more eminent, emerging hubs to cross-pollinate the growth potential and to create new opportunities within these nodes and along the corridors that would be required to connect them. The other main sectors as shown in also need to have specific strategies in support of their growth. There appears to be a healthy balance between office work and services, manufacturing and retail. Each of these have specific areas where they dominate and specific catalytic interventions that would facilitate and assist with the growth of these industries.

Further thought should also be put into exploring the possible growth of some of the more minor services. There are huge areas of agricultural land-use within the municipal boundaries of Tshwane yet this sector only make up a very minor contribution to the gross value add of the city's economy. Investing in innovative blue drop and green drop initiatives may propel this sector forward and create additional jobs within the sustainable economy sector.

See Figure 3.

The growth by income over the whole of Tshwane. It shows that there has been a strong growth towards the core areas of the city comprising of the middle-income group mostly. The average household income per annum increased from R94 908 in 2001 to R182 822 in 2011.

See Figure 4.

Growth in the lower income group is most notable around the peripheral areas of the city. The growth in low-income households provide a more encouraging picture below. It still shows that low-income households mostly settles on the outskirts of Tshwane. But is also reveals a settlement trend that starts to move closer to town. To align with statement made earlier in this BEPP, the areas such as Soshanguve, Garankuwa, Attridgeville and Mamelodi are entrenched. Even though some of these areas are far from the main areas of economic opportunity, the volume of people and the housing provided is a reality and needs to be supported through investment from the City.

The low-income households, are particularly vulnerable to the cost of transportation thus emphasizing the need to provide affordable, quality transport solutions to these areas in particular.

A further strategy, in line with the latest State of the Province address that calls for the specific support and upliftment of the so-called township economy (micro-enterprises), would be to stimulate the growth of business and economic opportunities within these areas itself, thereby decreasing the need for transport over longer distances which erodes quality of life and access to disposable income.

See Figure 5 and 6

This group, more settlement is taking place towards the "older" areas of Tshwane that are located in closer proximity to the CBD and other areas of economic opportunity

The growth in this segment has been the lowest. There are no particular outliers of note.

See Figure 7 and 8

The growth in jobs appears to have taken place substantively in very specific places in Tshwane. Areas in the north, east and south of Tshwane showed significant growth. The CBD area however have shown very little growth over the decade that it was measured. This appears to substantiate the deductions made earlier in this BEPP that going forward, the growth in jobs in Tshwane will occur in areas other than the CBD. It therefore once again underlines the importance of focusing investment and strategic interventions towards new, emerging growth nodes.

Tshwane's Basic Services Overview

The basic services are an enabler for economic opportunity and growth within the City of Tshwane. Each of the basic services will be reported on separately.

Impediments to Growth and Development in Tshwane

Adequacy of Capital

There are many aspects that underlines growth. In the world of economy, the relationship between these elements are modelled and scenarios are built to test the outcomes of specific interventions. At the root of an enabling environment though, is access to funding and capital. Tshwane recently started making use of a system called CaPS that aims to provide the city with a capital projects planning, prioritisation and management tool. The use of the system is still in its infancy but its full and ultimate use will provide the city with the ability to align the capital expenditure with the actual capital needs and with the city's objectives and strategies in a balanced manner.

The ultimate outcome that is desired is to get a comprehensive overview of the city's capital needs. The current project budgets and capital needs that were captured using CaPS, are a reflection of the MTREF (medium term revenue and expenditure framework). The numbers therefore do not reflect the actual capital needs of the city in the long term. The actual capital needs should stem from masterplans that are developed by each department that shows the current status of its performance and/or provision of infrastructure within a service area measured against the actual demand and the predicted growth going forward. Form this gap analysis, the actual needs should be derived.

The total capital need should then be compared to the availability and level of funding from various sources. In so doing the calculated backlog could then be divided by the rate of funding to determine the period (number of years) it will take to eradicate the backlog or to bring it down to acceptable levels. This understanding is vital in the prioritisation of capital going forward. It may, for instance point out that some of the departments within Tshwane need to receive disproportionate allocations of the overall budget in order to align an enabling economy in the short term.

The figure below shows the allocation of indicative budgets across the various department of Tshwane. Ideally to understand one of the major impediments to growth and development in context an additional graph next to the graph shown here, should show the overall capital need of each of these departments to address the need for capacity and the need to grow towards the goals and objectives as outlined in the Tshwane's IDP and Vision 2055 document. A good understanding of this very fundamental impediment to growth and development is unfortunately not available yet for this version of the Tshwane BEPP.

See Figure 9

Alignment of capital with the city's needs and objectives

Currently, many of Tshwane's capital needs stem from the need to provide capacity to meet the demand. There are also a couple of strategic projects that stems from specific interventions that were planned and executed by the city. The bulk of projects are however reactive to address the most urgent needs. The ideal would be to tip the balance of capital needs more towards being proactive than reactive. In other words, capital should increasingly be directed towards addressing the vision and objectives of the city. This can only be achieved if the backlogs are addressed adequately.

Service backlogs should be managed from two sides. One strategy would be to direct more funding towards the infrastructure required to address these backlogs. The other (and often neglected) strategy would be to find ways of reducing the backlogs by managing the demand that underpins these backlogs - for instance, if effective densification around transport corridors can be achieved, this would minimise the need to invest in infrastructure that must keep up with the sprawling housing settlements that are far away from the key transport corridors.

Understanding the demand

A major impediment to growth and development is a comprehensive and holistic understanding of the actual demand for services and the drivers of this demand. A cursory view tempts one to arrive at the simplistic solution that the demand is simply driven by the city's growth and human immigration. There are however a number of structural problems that are embedded in the city's layouts and land-use. Densification and restructuring of human settlement needs to take place. In some instances, Tshwane simply has to provide an enabling environment in terms of the provision of bulk services capacity, to allow this to happen. In other instances, Tshwane needs to affect more radical interventions to bring about the change that is required to achieve the necessary economies as articulated in the Vision 2055 document.

Sources of capital

The current 2016/17 capital budget for Tshwane amounts to approximately R3.4bn. See Figure 10

The concern with the current sources of funding within Tshwane is that it is very grant dependant and only a very small amount of Tshwane's own capital features in the overall funding of capital needs. There are good reasons for this – it does however impose a major impediment on growth and development going forward. Strategies need to be put in place to:

- Start alleviating the burden on Tshwane's internally generated capital,
- To increase the rates base feeding the internally generated capital

This would provide the city with more freedom and independence to forge ahead with its own vision, mission and underlying objectives. It will also accelerate the rate at which infrastructure gets implemented towards the achievement of the city's goals.

Tshwane trends and pressures

- Immigration
- Tertiary Education
- Job Entrants
- Established settlement patterns
- Human Settlements
- Broad issues associated with each administration region
- Reduced carbon footprint

Trends and Demand for Economic Infrastructure

Gauteng City Region Activity Nodes and Regional Transport Network

See Figure 11

City of Tshwane Strategic Investment Areas

In March of 2011, the CoT approved the Tshwane Strategic Investment Attraction, Facilitation and Aftercare Plan (2011-2016). The purpose of the plan is to outline the City of Tshwane's strategic and systematic approach to the investment promotion, attraction, facilitation and retention function with the view to increase investment volumes in the City which would have a direct impact on economic growth and developments, as well as increase the employment creation potential of the economy.

The plan identifies the following as priority investment sectors for Tshwane:

- Automotive industry and Components
- Tourism and Related services
- Agriculture and Agro-processing
- Aerospace and Defence technologies

- Mixed Manufacturing
- Research and Development
- Alternative and Renewable Technologies
- Business Process Outsourcing and Off-shoring
- Mining and Beneficiation

The proposed growth nodes are discussed in more detail in the report. An overview of the economic infrastructure demands and trends are provided in the following sections of the report.

Trends and demands for Basic infrastructure

Roads and Transport

This section summarises the available information on roads and stormwater assets, backlogs and planned projects within the City of Tshwane (CoT). It is broken down per region where possible.

Asset description

There is currently little available information from which to draw an accurate, consolidated asset list of roads and stormwater within the CoT. The recently prepared Roads Master Plan may be able to provide some useful information towards this end.

Backlogs estimation

Projects to address current backlog and Future Demand

There are a number of planned projects relating to the upgrade of roads and stormwater infrastructure which cover upgrades to accommodate future growth, to better handle existing capacities or address various backlogs.

See Figure 12 and 13

It is clear that the City would require an estimated R21billion, in current terms, in order to implement new and upgraded strategic roads purely to accommodate new growth within CoT. A large proportion of this (R12m or 59%) is to accommodate freight movements whilst the remainder (R8.5m or 41%) is to accommodate general traffic.

Medium term revenue and expenditure framework (MTREF)

The total estimated cost of the projects comes to just under R5billion. It's important to note that these projects are either to meet existing backlogs or handle existing capacities and does not take into account new growth in the City. Of the above projects, the bulk (R3.6m or 75%) is made up of roads upgrades; within this amount is R2.3billion (or 49% of the total) towards associated transport infrastructure upgrades that will be necessary when implementing the Tshwane Rapid Transit (TRT) project in the CBD and surrounds. The remainder is made up of R1billion (or 20%) towards stormwater-related issues and R97million (or 2%) towards traffic control and signage, pedestrian and cyclist projects. The remainder is not specified and will likely be spread between roads and stormwater-related projects.

Transportation

This section provides the available information on the existing infrastructure, existing backlogs and planned projects for public transport, non-motorised transport, parking and aviation within the CoT. It is broken down per region where possible.

Public Transport

There are 60 registered bus facilities within the CoT. Roughly half of these (31) are formal facilities whilst the remaining (29) are informal facilities. The formal facilities could have some kind of shelter, be paved, have complementary facilities such as benches, rubbish bins, signage and toilets, however without more detailed information it is impossible to tell. The informal facilities are likely to have no paving, shelters, etc. and may just be dustbowls located adjacent to the roadway. It is important to have detailed information on what a facility might contain as well as the general condition thereof in order to maintain an asset register and manage the maintenance or upgrading thereof.

Of the 60 facilities, 25 are listed as on-street (possibly in the form of a lay-by) whilst the remaining 35 are listed as off-street. Roughly half (29) of the facilities are drop-off and pick up only, roughly a quarter (16) are termini (located at the end of a bus route) and the remaining quarter (15) are listed as bus ranks. The bus ranks may have multiple destinations and pick –up areas.

The available information on mini-bus taxi facilities has some information on the name and location of the facility, whether the facility is forma, semi-formal or informal, some information on the type of operations at the facility, an ID (if applicable) and co-ordinates of the facility. In general, the information has some gaps and does not include information on the condition, age or value of the facility. From the available information, it is apparent that there are 148 mini-bus taxi facilities across the CoT; 22 of these are formal, 15 semi-formal and 11 informal. The formal ranks may have formalised accesses, be paved, have facilities such as shelters, toilets, benches, lighting, signage and have rank marshalls. The semi-formal facilities may have only one or two of these facilities whilst the informal facilities will likely have none of these and be a dustbowl adjacent to the road.

Of the 148 mini-bus taxi facilities, nine are listed as drop-off and pick-up only, 13 as holding facilities (waiting areas for taxis between routes, no passengers here), 103 as operational and 1 not utilised (in Saulsville).

Projects to Address Current Backlog and Future Demand

The most critical transport need and priority for Tshwane is the development of a high-quality integrated public transport system that provides sustainable and affordable mobility and access to the citizens of the City. The CoT has developed a draft integrated public transport network (IPTN) operational plan, which focuses on the rapid public transport modes, such as BRT, rail and high-quality bus, as well as non-motorised transport (NMT). The IPTN will be further refined as part of the CITP. The initial phase of the CoT's TRT system has been launched and is currently operating between the CBD and Hatfield. The IPTN Operational Plan indicates the implementation priorities for the full IPTN over the next 20 years.

The IPTN is funded by National Treasury in terms of the Public Transport Systems Grant. The IPT route network constitutes an important part of the Spatial Target Areas of the City that must be supported by infrastructure development and capital expenditure.

The projects identified here address current priority needs and will be updated when the CITP has been completed by June 2015.

Non-Motorised Transport

The complete NMT network was developed after superimposing the IRPTN NMT network, with the Regional NMT Master Plan Network and the Metropolitan NMT Master Plan Network. Some of the routes of the Regional and Metropolitan network were similar as those identified for the IRPTN NMT Master Plan.

Parking

The City of Tshwane has a number of parking problems and challenges. They range from the unavailability of on-street parking, illegal use of parking bays, double and triple parking and general non-compliance to restrictions.

A parking policy and strategy for the City of Tshwane is currently being developed as a part of the Comprehensive Integrated Transport Plan (CITP). As the name suggests, it is an integrated approach to solving the transportation problems, taking into account public transport, travel demand management measures and non-motorized transport. However, the CITP is a 5-year process and the outcomes and interventions proposed may not be immediately implementable. Due to the timeline and funding, the CITP is a medium to long-term strategic plan. The immediate day-to-day problems remain unaddressed.

Aviation

There are ten airports within Tshwane, however only one is owned by the City, namely Wonderboom Airport.

The Wonderboom Airport Development Plan (2004) focuses on the immediate upgrades required to accommodate domestic scheduled flights and private chartered domestic and international flights. The Development plan takes into account the airport expansion required to stimulate the local economy by complimenting the developments planned in the vicinity of the airport.

The strategy for the Wonderboom Airport published in the City of Tshwane Integrated Transport Plan (2006 – 2011) outlines the City's intention to develop the airport for scheduled domestic flights as well international flights serving the SADC region.

TRANSIT ORIENTED DEVELOPMENT SHORT-TERM STATE INTERVENTIONS FOR REALISING DENSIFICATION & INTENSIFICATION WITHIN THE IRPTN CORRIDORS AND NODES

Finance Mechanism for Transit Oriented Development:

Land Value Capture Instruments

The city has prioritised investing in public transport infrastructure, namely, the Tshwane Rapid Transit as a catalyst to the reconfiguration of the urban fabric. The key objectives to this include carbon emissions reduction, crowding-in of investment, unlocking development potential by stitching the city together linking areas of existing and new potential, shortening travel distance and maximising the sustainable use of state infrastructure. One of the key interventions for state development within the IRPTN is residential densification and integrated mixed land use to support the Sustainable, Compact City Concept.

United Nations (1976) defines land value capture to be " the unearned increment resulting from the rise in land values resulting from change in land use, from public investment or decisions, or due to the general growth of the community must be subject to appropriate recapture by public bodies (the community)". In the city's context, investment in public transport infrastructure yielding the intended objectives above requires a coordinated effort from City Planning and Development Department, Economic Intelligence, Finance Department as well as the Property Development Department. This relationship should be institutionalised through a Governance Structure to monitor and evaluate the best and successful solutions and well as clarifying accountability in respect of defined roles.

It is recommended that a desktop analysis be undertaken on how land value capture would benefit the city in the short to medium term as a financing mechanism for TOD as well as a plan on addressing the challenges identified hereunder and any other that will be identified as part of the study.

Towards realising the above, various land value capture instruments have been applied, namely, land acquisition and sales, development incentives and impact fees.

Land Acquisition

The 8 sites as depicted on the map above have been identified as properties with the highest potential for sustainable high density housing. The properties, which should be acquired and reserved solely for the intended usage will spearhead the city towards its the spatial vision objectives. The envisaged densification yield is a total of about 93 000 units at an average of 120 units per hectare. The current backlog in the City is in order of 150 000 units. A large percentage 66 % of the units can be provided on the site as identified. Four sites are Council owned and should be prioritised in terms development initiatives.

Land to be developed for integrated human settlements along the IRPTN

Property Description	Size	Ownership	Potential units
Portion of the Remainder of Portion 16 and 164 of the farm Klipfontein 268 JR.	81 ha	Private	10 000 (120 / ha)
Portion of the Remainder of Portion 164 of the farm Klipfontein 268 JR.	112 ha	Private	13 000 (120 / ha)
Portions 38, 124, 507 , 527 and 528 of the farm Hartebeeshoek 303 JR.	18 ha	Private	2000 (120/ha)
Remainder of the Farm Transpark 639 JR.	285 ha	Government	30 000 (120 ha)

Development Incentives

The Incentives Policy should be reviewed in line with all legislative requirements and regulatory frameworks. An implementation plan should be developed.

TOD: PRASA investments

Prasa's Modernisation programme impacts on the TOD investment areas identified in the City.

Energy and Electricity

Demand and Supply

The City purchases the majority of its electricity requirement from Eskom at Eskom's published Megaflex tariffs.

Power Stations

The Rooiwal power station is located within the rural area north of Tshwane. The station was built in the 1960's and is currently operating at far below the original design capacity of 300MW.The site has potential extension possibilities in several directions.

The efficiency of the Rooiwal power station, even when fully operational , is well below the norm for modern plant. Substantial investment, circa R 4 to 5 billion will be required to restore it to as close as possible to its original capacity.

The Pretoria West power station is located on a confined site without extension possibilities in Pretoria West. This station was first commissioned in the 1950's , with an even lower efficiency than the Rooiwal plant. Investment of circa R3 to R4 billion will be required to restore it to as close as possible to its original capacity.

The City has also embarked on a project to obtain third party involvement in the power stations , with private investors funding the refurbishing the power stations and to possibly construct a further new circa 300MW power station on the current Rooiwal site and to then operate and maintain the stations with the generated electrical energy being sold to the City on the basis of long term Power Purchase Agreements. Implementation of the power station refurbishment will however still require the City to purchase the bulk of its electricity requirements from Eskom at various In-feed points into the City's network.

Infeed points from Eskom

An In-feed substation is a substation where CoT purchases bulk electricity from Eskom and distributes it on 132kV and 33kV infrastructure. Currently there are 11 In-feed substations covering the entire City of Tshwane Metropolitan Municipality and a portion of Madibeng Municipality (Hartebeespoort area).

The current challenges with regard to the In-feed substations include the following:-

- Land/servitude matter for the construction of Wildebeest In-feed supply point from Eskom which needs to resolve. This matter has been with Eskom for approximately 5 years and will impact the whole of sub transmission In-feed network and will filter to capacity being allocated for new developments. Eskom mentioned that they have constraints in their network and based on their master plan they were going to be ready to provide additional capacity to the City by 2014, which later changed to 2016.

- Eskom is prolonging to furnish the City with budget quotations for the applications made by EED and not committing to delivery dates of other supply points.

Primary distribution network

The City distributes electricity throughout its supply area at 132kV, 88 kV and 33 kV networks. The network consists of high voltage overhead lines and, to lesser extent underground cables that supply electricity to a number of distribution substations where the voltage is stepped down from (mainly 132 kilovolt (kV) to 11 kilovolt).

The system consists of a total of approximately 450 km of high voltage overhead lines and cables and 66 step-down plus two switching stations. Most of the primary substations backlog was eradicated in the past six (6) years and most of the have adequate capacity. The infrastructures at most of the identified node within the City have been upgraded to cater for new developments.

Secondary networks

Electricity is distributed form the primary substations to 11 kV switching stations. The feeders are mostly underground cables. Local distribution is also by means of mostly underground 11 kV cables, which connects to local medium to low voltage distribution transformers from where residential and small consumers are supplied at the normal household voltage of 415V three phase or 240 V single phase through an extensive low voltage distribution network.

Larger consumers such as larger industries, large malls are supplied directly at 11 kV. In the case of new residential developments, the developer is required to not only provide the township internal medium and low voltage reticulation, but also the main feeders and switching stations.

Drivers of electrical load growth

Electrical load growth is driven by new township developments, new commercial and industrial developments, electrification programmes, township densification and growth in the demand of existing consumers.

Winter demand readings are taken on main substations and feeders, which serve to inform load- growth forecasts per suburb, substation, feeder, and regions. This together with new developments then serves as the basis for identifying projects per region.

Asset register

A high-level asset register of the primary networks and the in-feed substations for the City of Tshwane is included in the BEPP.

Summary of network and constraints

The following summary of network constraints is noteworthy:

- Electricity networks within the City of Tshwane are currently stable but most of the overhead lines are over loaded as they are on firm capacity (no back up). The City of Tshwane has a combination of 150MVA and 300MVA overhead lines which supplies power from the substations to the different parts in and around the City. Some of the 150MVA overhead lines are fully loaded and cannot transfer any more additional capacity out of the substations until CoT network has been upgraded.

- It is difficult to upgrade these lines due to the following reasons;
  - Additional servitudes are needed before new lines can be built.
  - The lines traverse over/between developed residential areas.
  - The lines cannot be switched off in order to do the upgrading.

- The in-feed stations will have capacity constrains in the next few years as they will be running without back up. Eskom must commit to the feasibility and budget quotations delivery dates.

- The City Centre 132kV cable has to be replaced as they are over their life span and might not be able to provide reliable supply.

The underfunding, cut of funds and theft of electricity bulk infrastructure have a negative impact on service delivery and development and the loss in revenue

Overview of bulk infrastructure projects

The projects relating to the bulk electrical infrastructure of the City should be completed:

- Compile and execute a 20-year master plan report of the 132kV sub transmission network in order to ensure capacity for future electrical developments.
- Compile and execute a feasibility report for the 132kV sub transmission network to ensure cost effective projects.
- Maintain and update network data to ensure effective Network Planning.
- Design the 275, 132, 33 kV sub transmission network to ensure compliance to set standards and specifications.
- Compile the tender document to be submitted to procurement for final approval and the appointing of a contractor to execute the project.
- Manage the execution of the project to ensure that the project adhere to all set standards and specifications.

In-feed stations

In-feed substations are substations where CoT purchases bulk electricity from Eskom and distributes on 132kV and 33kV infrastructure. Currently there are 11 In-feed substations covering the entire City of Tshwane Metropolitan Municipality and a portion of Madibeng Municipality (Hartebeespoort area).

The winter load on the Tshwane In-feed sub stations are equal to the current installed capacity. It takes a minimum of 24 months to construct an In-feed substation. There are monthly meetings held between Eskom and the City of Tshwane Energy and Electricity Division (EED), to eradicate the loading status of In-feed substations and construction of the new Wildebees In-feed substation as the solution for the whole city to deload the existing Kwagga (capacity of 900MVA), Njala (Capacity of 750MVA) In-feed substations and other 132kV overhead lines.

The current challenges include the following:

- Land/servitude matter for the construction of Wildebees In-feed supply point from Eskom which needs to resolve. This matter has been with Eskom for approximately 5 years and will impact the whole of sub transmission In-feed network and will filter to capacity being allocated for new developments. Eskom mentioned that they have constraints in their network and based on their master plan they were going to be ready to provide additional capacity to the City by 2014, which later changed to 2016.
- Eskom is prolonging to furnish the City with budget quotations for the applications made by EED and not committing to delivery dates of other supply points.

The implementation of these projects is critical to ensure that the In-feed demand requirements can be met by bulk electricity supply.

Summary of Electrical Infrastructure trends and demand

- Electricity network within the City of Tshwane is currently stable but most of the overhead lines are over loaded as they are on firm capacity (no back up). The City of Tshwane has a combination of 150MVA and 300MVA overhead lines which supplies power from the substations to the different parts in and around the City. Some of the 150MVA overhead lines are fully loaded and cannot transfer any more additional capacity out of the substations until CoT network has been upgraded.
- It is difficult to upgrade these lines due to the following reasons;
  - Additional servitudes are needed before new lines can be built.
  - The lines traverse over/between developed residential areas.
  - The lines cannot be switched off in order to do the upgrading.
- The In-feed stations will have capacity constrains in few years as they will be running without back up. Eskom must commit to the feasibility and budget quotations delivery dates.
- The City Centre 132kV cables have to be replaced as they are over their life span and might not be able to provide reliable supply.
- The underfunding, cut of funds and theft of electricity bulk infrastructure have a negative impact on service delivery and development and the loss in revenue

Electrical Infrastructure asset register

An overview of the current electrical infrastructure assets of the City of Tshwane is provided.

Water and Sanitation

Current water sources and demand

The City of Tshwane (CoT) currently has an average potable water demand of 987 Ml/d. Rand Water Board supplies approximately 72% of the CoT demand from the Vaal River. Fountains, springs, boreholes and Water Treatment Plants (WTP) supply the remainder of the water demand of the city. The largest WTPs in Tshwane are Rietvlei WTP (40 Ml/d), Roodeplaat WTP (60 Ml/d), Bronkhorstspruit (54 Ml/d) and Temba WTP (60 Ml/d). Magalies Water Board (MW) also owns and operates three WTP's which supply CoT, namely Klipdrift WTP (18 Ml/d), Wallmannsthal WTP (12 Ml/d) and Cullinan WTP (16 Ml/d).

Future water demand and sewer flows

In accordance with the CoT current water and sewer Master Plan, which was based on the MSDF, the CoT potable water demand is set to increase over the next 40 to 50 years to 2600 Ml/d, with concomitant increase in sewer return flows to 1600 Ml/d.

The anticipated future water demands and sewer return flows will require a growth rate of ±2% p.a. (within CoT), which is not altogether unrealistic, given historical statistics. There are however a few very large areas where growth may or may not realise as anticipated. These needs may have a significant effect on sewer return flows and therefore the water resource availability at certain points in the Crocodile and Olifants River basins:

- R21 Corridor (extends into Ekurhuleni)
- Western Centurion
- East of Silver Lakes
- Doornpoort (north of Montana)
- Kameeldrift/Derdepoort area (southwest of Roodeplaat dam)
- Area southeast of Soshanguve
- South of Temba

Water conservation and demand management

The City of Tshwane has initiated a process to establish and implement a water demand management strategy with the following objectives:

- Quantifying the existing water loss and comparing with acceptable benchmarks. This process is updated on a monthly basis.
- Listing all the main water loss and water demand management aspects and rating the performance of City of Tshwane on every aspect.
- Providing recommendations with cost estimates on how the City of Tshwane can improve on every water loss and water demand management aspect.

- Prioritising the various WDM activities in order to optimise results, inter alia to meet targets as required by the Vaal River Reconciliation Steering Committee.

Short term capital expenditure requirements

See Figure 14 and 15

Trends and demand for residential infrastructure

Housing demand

An analysis of the conversion of land that was vacant in 2011 and that now accommodates residential land use indicates that approximately 88% now accommodates formal residential housing, whilst 12% of previously vacant land now accommodates informal settlements. The largest take up of land for informal residential housing (approximately 61%) has occurred within Region 6.

2011/2012 surveys of informal settlements undertaken as part of the Sustainable Human Settlement Plan indicate approximately 164 014 informal structures within the City of Tshwane compared to 139 529 in 2009 and 146 304 recorded in 2006. These informal structures exist in a total of 130 clusters. A reduction in informal structures between 2009 and 2006 was recorded in the Temba area where several large-scale programmes have been implemented, especially in the Hammanskraal South Extensions. Other areas showing a significant reduction in numbers include Soshanguve North where extensive infill developments were completed; as well as Atteridgeville; and Olievenhoutbosch. The most notable growth was recorded in the Mamelodi area where, despite the implementation of several large projects, the informal settlement count has increased significantly per annum.

The largest concentrations of informal settlement occur in Regions 1 and 2 (the Temba-Hammanskraal and Garankuwa-Mabopane-Soshanguve and Winterveldt areas) respectively, followed by Region 6 (Mamelodi) and Region 3 (Atteridgeville).

In addition to informal housing units, 83 378 backyard units have additionally been identified, which provide an indication of affordable rental demand.

With consideration of the number of informal units and backyard units, in addition to the current registered demand for subsidised housing, the current total residential housing demand is estimated to be approximately 390 494 housing units.

Consolidation and formalisation programme

The consolidation and formalisation programme is largely focused on the upgrading of the informal settlement areas. This programme includes the identification of in-situ upgrade areas, as well as the identification of informal settlement areas that are to be relocated and the receiving areas that are to accommodate those relocations.

Intervention programme

The intervention programme considers the proactive provision of housing in line with the City's spatial policy's i.e. the provision of high density housing within mixed-use, walkable transit precincts.

The intervention programme includes the following:

- Integrated residential development on council owned strategic developable land, as well as government owned vacant land
- The redevelopment of land within the Inner City and Pretoria West
- Subsidised rental projects within the region
- Subsidised housing projects on vacant private land; and
- High-density residential housing (an average of 80 du/ha) along IRPTN corridors and surrounding IRPTN stations, as part of the compaction and densification strategy. Along TRT corridors a densification buffer of 200m is assumed, whilst a 500m buffer is considered around all rail stations.

Housing provision on Council Owned strategic developable land

The city is in the process of developing a Land Release Strategy and is also exploring various mechanisms in respect of its real estate property. Parallel to this process is the development of the Property Management Strategy, which will focus on the illegal occupation of Council owned land and buildings. As part of the Land Release Strategy, the Council has identified and approved the release strategic land parcels located throughout the City, with the intention that the development of these land parcels act as a catalyst for economic growth locally and within the metropolitan context as a whole. As a first phase in the process, it was decided to release 12 land parcels to the private sector and to publish a call for proposals towards the development of these.

Housing provision on council owned vacant land

A vacant land audit of existing government owned land was additionally undertaken. This included vacant land owned by the City of Tshwane, as well as other government entities and parastatals. Existing vacant land within the Region.

Assuming medium density residential development (80 du/ha) on these land parcels, an additional 71 477 housing units can be provided.

The Redevelopment of Land within the Inner City and Pretoria West

As part of the City of Tshwane Inner City Revitalisation Strategy, the redevelopment of land within the Inner City and Pretoria West for residential purposes has been identified in line with the principles of compaction and densification. Approximately 39 418 residential units are to be provided as part of this strategy.

See Figure 16

Subsidised Rental Projects

A number of rental projects have been identified across the City. This program yields approximately 19 422 subsidised residential units.

Subsidised Housing on Vacant Private Land

In addition to City funded housing programmes, the City has partnered with private developers to establish housing schemes on vacant private land parcels within the City. It is anticipated that the current programme will yield a total of 1 436 residential units.

Residential densification along IRPTN corridors

As part of the development of the IRPTN, a housing densification strategy along the IRPTN corridors was established. As part of this Local Corridor Analysis, the rail system, as well as the respective TRT lines were assessed.

A number of principles were taken as points of departure for the detailed Local Corridor Analysis. These include:

- The principle of densification along TRT Corridors and around railway stations (TOD development) as promoted by the MSDF and RSDFs of the City;
- That existing PRASA rail infrastructure would be optimised, because rail is the backbone of the IRPT Network; and
- That brownfields sites would be optimised, and infill development on vacant land pockets would be prioritised before expanding the urban footprint.

Planned TRT network

Similar scenarios for the individual BRT route sections along the IRPTN were assessed.

The total potential residential yield along the IRPT Network (with Line 4 Original) stands at about 178 708 residential units.

This comprises about 49 503 units (28%) for high income, 52 629 units (29%) for middle income, and 76 575 units (43%) of the total yield for low income. In the Line 4 Alternative scenario the total yield increases by approximately 20 000 units to 198 577 units. Under this scenario, the high income yield is a little higher at 32% with a yield of 63 890 units, while the lower income portion drops to 29% of the total, although the total low income yield increases from 76 575 to 77 330 units.

In terms of the Original scenario the railway section of the IRPT Network yields between 33% and 36% of the total residential capacity, depending on which of the Line 4 alternatives is used.

Intervention Programmes

With consideration of all its components, the intervention programme intends to supply a total of 149 377 low-income residential units. It should be noted that this considers the base case IRPTN densification scenario, for low income housing only, including the alternative alignment for TRT Line 4.

Total housing supply

With consideration of the housing supply for both the consolidation and intervention programmes, a total housing supply of 332 814 residential units may be achieved (Refer to Table B.4.4□1). This total accommodates approximately 85% of the current low income-housing backlogs.

Trends and Demand for Community and social infrastructure

Health and Social development

Health and social development facilities

The wellbeing of a society – the state of its human development – is partially measured by the extent to which all its citizens enjoy good health, education, shelter and other life amenities that are generally regarded as social services.

In line with Tshwane Vision 2055, the three main focus areas include some concerted efforts towards zero deprivation, scaling up of early childhood development and the reduction of the burden of disease. According to the Gauteng Social Development Strategy, Social Development is about maximizing the capacity of the individual, the family or household and the community to participate productively in society, both socially and economically.

Social Development is about achieving the optimum potential of people for self-actualisation, without prejudice of any form. This can be achieved by facilitating optimisation of people's welfare, job and opportunity creation, and adequate functionality in social relationships at individual, family, community level, and access to social grants. It involves the mobilization of community development and empowerment. Central to the whole notion of Social Development is the Social Infrastructure Development.

Although it is an established fact that the provision of Primary Health Services is the competency of Province, City of Tshwane has over the years delivered this service on an agency basis. This had the effect that both Gauteng Provincial Government and City of Tshwane were providing the same service to people of Tshwane to an extend that there are about 22 clinics built and managed by the City and there are those built and managed by the Province within the Tshwane (about 88 health facilities). The latter had in turn provided subsidy to the former. The backlog to date involves about 15 Health Facilities.

The provision of Social Services is the shared function of all three tiers of Government. The City has a dedicated division providing Social Services including provision of Early Childhood Development, Care for the Aged and services to other vulnerable groups such as Youth, women and people with disability. To this extend, social infrastructure such as Early Childhood Development Centres, Multi-purpose Centres, and Transitional Centres for the homelessness. Currently the City is managing about 10 crèches with the potential for accommodating 1200 children from disadvantaged communities per year. The City has just approved a report on the initiatives to alleviate the problem of homelessness in the City. This report calls for amongst other interventions the revamping of 3 buildings within region 3 as well the construction of one Transitional Centre for the homelessness in each of the remaining 6 regions.

Sport and recreation facilities

The provincial and national government have committed to assist with the following projects:

- Olievenhoutbosch Community library 2014/14 financial year GP SACR
- Sokhulumi Community library 2015/16 financial year GP SACR
- Outdoor Gym 2013/14 financial year National South Africa Sport Department
- Solomon Mahlangu Freedom square 2013/14/15 financial year National Treasury under NDPG/Tsosoloso Project

Summary of total backlog for all Library, Sport & Recreation, Arts & Crafts Facilities

Function	2015/16 – 2016/17	2016/17 – 2017/18	2017/18 – 2018/19	2018/19 – 2019/20	TOTAL
Libraries	56,000,000	54,000,000	36,000,000	95,000,000	241,000,000
Culture	49,000,000	30,000,000	17,000,000	40,000,000	119,000,000
Sport	215,000,000	170,000,000	200,000,000	70,000,000	655,000,000
Greening	25,000,000	30,000,000	35,000,000	40,000,000	130,000,000
Total	195,000,000	274,000,000	273,000,000	225,000,000	1,145,000,000

The sport and recreation facility maintenance backlog is provided.

- The 2014/15 annual Operational Budget allocation towards the Repairs and Maintenance of Sport & Recreation facilities to all 7 Regions was R 19,316,450. This allocation constituted a 32% reduction from the 2013/14 financial year which amounts to R 28,743,763. The estimated maintenance backlog is R 232,637,611 for all 7 regions.
- The condition of all Sport & Recreation facilities deteriorate annually due to a lack of adequate maintenance funds. At the current rate it will take many years to reach the desired condition for all facilities.
- The scientific needs assessment done for the maintenance of Sport & Recreation facilities has to inform the allocation of opex funding awarded to the Regions.
- Future capex infrastructure establishment should not materialise unless operational funds are available.

Trends and demand for Transportation

Transportation profiles analysis

The trends in demand for transport were sourced from the Tshwane Household Travel Survey, which was conducted during 2013 (Household Travel Survey Draft Technical Report 2013, City of Tshwane).

This report indicates that there is a direct relationship between income levels, car ownership and main mode of travel within Tshwane. As mean monthly household income increases in an area, so does the household car ownership and incidence of car travel as main mode of transport. In the same way, as income levels and car ownership decrease, so does the utilisation of public transport. The more affluent areas such as Montana, Tshwane South-East and the New East have high levels of car ownership and utilisation of cars as the main mode of transport, as shown in Figure B□84. Similarly, the lower income areas such as Hammanskraal, Wallmannsthal and Tshwane Far-East have lower car ownership rates and usage of cars as main modes of transport.

The types of transport problems experienced in Tshwane overall appear to be overwhelmingly related to public transport, with only 1.4% of problems relating to roads or cars and traffic. The majority (54.8%) of transport problems experienced are related to minibus taxis, however it is important to note that the majority of public transport travel is by minibus taxi. The main problems experienced with public transport are the availability thereof (38.8%) and the cost thereof (28.3%). The safety of public transport services comes in only fourth as a point of concern.

See Figure 17

The mean travel time experienced by Tshwane residents is 50 minutes. Looking into travel times in more detail, the HTS data tells us that the mean travel time to work is much higher than that to education destinations, at 56 minutes and 38 minutes respectively. This could be attributed to the lack of work opportunities within the residential areas in Tshwane i.e. residents are forced to work in areas outside their area of residence. In areas like the Tshwane CBD, the Old East and Oos Moot/ Waltloo/ Silverton there is a mix of residential and business land uses; this means that people can both live and work in the same area and as a result their travel times to work are lower than the mean at 44 minutes. In rural and low-density areas such as Wallmannsthal and Ekangala work opportunities are located further away, for example in the CBD or suburbs of Tshwane, and this may be the reason that travel times are generally higher than the mean at 67 and 61 minutes respectively. Traditionally residential areas which were deliberately located away from the City, such as Mamelodi/ Nellmapius/ Eersterust, Ga-rankuwa and Soshunguve have few work opportunities within the area and so their travel times are above the Tshwane mean at 66, 58 and 61 minutes respectively.

Generally learners will be able to attend school within the same area that they live, hence the lower overall travel times; for this reason learners are often able to travel to school on foot.

Modes of travel that take the longest are train and bus at 81 minutes and 76 minutes, average, respectively. The HTS data points to the long travel times train users experience being a result of proportionally high walking, waiting and transfer times during the journey. This is likely as a result of a low proportion of rail users living and working near stations, and irregular train services. The same HTS data points to waiting and in-vehicle time being the highest proportion of bus travel times; this could be attributable to irregular bus services and indirect journeys with multiple pick up locations.

Travel on foot takes on average 34 minutes, which equates to roughly 2.5km (at the generally accepted walking speed of 1.2 metres per second)

City Spatial Structure Implications on Transportation demand

The city's transit system needs to provide linkages between main activity areas, such as areas of residence and places of work and education. Linking these areas and nodes will establish development corridors or integration zones.

Owing to the size and complex structure of urban and metropolitan nodes within the city, transit links needs to be provided between the metropolitan and urban nodes.

These links will be both radial links that provide express services to the metropolitan nodes (Pretoria CBD, Menlyn and Centurion) and circular routes that provide direct connection between urban nodes (Hammanskraal to Mabopane, Monavoni to Centurion, Centurion to Mamelodi,).

The nodal hierarchy provided in the Spatial Development Framework of the city provides a good understanding of the primary transport origins and destinations of Tshwane.

Primary Transport Corridor Demand Analysis

The origin-destination analysis in the previous chapter gave rise to the identification of primary, secondary and tertiary movement corridors within the City of Tshwane. This section serves to briefly unpack each of the primary demand corridors of the city in terms of origin-destinations served, first order corridor alignment and peak hour person trip demand.

Strategies and Programmes

Identification of Urban Network, Integration Zones and Hubs/Nodes

City of Tshwane Urban Network Strategy

The Urban Network Strategy is a national policy directive that informs spatial planning at both a provincial and regional scale and forms the basis of the Built Environment Performance Plan by providing a spatial approach by which to target investment. The Urban Network Typology comprises:

- The Central Business District an area for focused regeneration and management,
- Urban hubs, including both traditional and emerging centres of economic activity, within which mixed used development is to be encouraged and managed;
- Activity corridors, which connect the urban hubs and the CBD, along which rapid public transport and integrated high-density land development is to be promoted;
- Smaller nodes, within which mixed-use development is similarly to be promoted;
- Secondary transport linkages that are to ensure the spatial integration of smaller nodes by connecting them to urban hubs; and
- Integration zones, which represent a collective of these typologies and form the prioritised spatial focus areas for coordinated public intervention.

In line with the Gauteng Spatial Development Framework and the Urban Network Strategy, the MSDF identifies specific structuring elements to guide development within the Region. This includes:

- Urban mixed-use activity nodes, which have been classified hierarchically as follows:
  - The Capital Core i.e. the Tshwane inner city – an area for focused regeneration and management;
  - Metropolitan Nodes i.e. primary nodes of regional and provincial relevance which function as economic hubs and focal points for employment opportunities;
  - Urban Cores which represent the former township areas that developed as a result of forced relocation programmes; and
  - Emerging Nodes i.e. areas with future possible potential for development.

- Open space and green systems;
- Public transport and movement routes to promote connectivity within and between the nodes;
- Urban corridors and activity spines along which mixed-use densification is to be promoted; and
- Specialised activity areas characterised largely by mono-functional land uses of metropolitan significance, including: industrial estates; research, innovation, education and technology institutes; airports etc.

Within this context, nodes represent areas for focused infrastructure investment to support and facilitate economic development and growth. Metropolitan nodes within the City of Tshwane are largely already spatially integrated with a number of economic investment centres on a strategic scale and have benefited significantly from private sector investment. Urban Cores, however, represent areas of significant need both from a social upliftment and spatial integration perspective.

The sustainability of the nodal concept is dependent on connectivity and ease of access from one node to the other. Connectivity via the movement system effectively strings the city together, making it 'smaller' and providing equal access for all residents to all nodes, integrating labour markets, and providing flexibility around options for residential location versus one's place of work.

The IRPT network seeks to optimally integrate road, rail and air transport within the CoT. The intention therefore is that the IRPTN will allow equal access for all residents to all nodes in the City, and in so doing, ensure the spatial integration of the City's labour markets.

Also embedded in the MSDF is the principle that the catchment area of each node in the City of Tshwane should be fully covered in terms of feeder route systems that support the main transportation routes, and that no person should have to walk more than 800m within a node to find a form of public transport. It is therefore equally important that the routes to the public transport mode or facility are fully pedestrianized and appropriately accommodate people with special needs.
Integration zones represent the combination of nodes and connectivity corridors, which form the prioritised spatial focus areas for coordinated public intervention.

See Figure 18

Coordination and Alignment with Strategic Infrastructure Projects (SIPs)

The nationally prepared strategic infrastructure projects (SIPs) cover social and economic infrastructure and include catalytic projects that can fast-track development and growth. Two strategic infrastructure projects are to be implemented in the City of Tshwane, namely:

- SIP 2: Durban-Free State-Gauteng logistics and industrial corridor

The aim of projects that form part of SIP2 is to strengthen the logistics and transport corridor between South Africa's main industrial hubs. Freight in the City of Tshwane has been discussed under Sub-Section B.2.2.2 above.

- SIP 7: Integrated urban space and public transport programme

This project aims to coordinate planning and implementation of public transport, human settlement, economic- and social infrastructure and location decisions into sustainable urban settlements connected by densified transport corridors.

Allocations are made for the implementation of the Tshwane Rapid Transit (TRT) route in the City of Tshwane 2015/2016 Capital Budget to the value of R745 609 000. This is a continuation from the previous financial year's work on the TRT project.

Densification with the correct yields and housing typologies around the TRT route must be spatially ensured. This is an immediate short-term objective. TRT Trunk Routes will have stops at Soshanguve, Rosslyn, Akasia, Rainbow Junction, CBD, Hatfield, Menlyn and Mamelodi.

Guiding Principles for the Development of Nodes within the City of Tshwane

In line with the spatial policies of the City of Tshwane, the following principles underpin the development of sustainable urban nodes:

- Compact Cities;
- Transit Orientated Development (TOD)

These principles are both complimentary and overlapping. The distinctions and implications of these principles, in practical terms, are briefly outlined in the subsections.

Prioritisation of the Urban Cores

Within the City of Tshwane's Urban Network Strategy, Urban Cores represent areas of significant need both from a social upliftment and spatial integration perspective. In line with this mandate, the City of Tshwane is in the process of developing medium to long term development plans and implementation strategies, referred to as Development Intervention Portfolios (DIPs), for these key nodal areas, with the intention to pro-actively structure and optimize development in order to create a city that is not only spatially efficient, but that also provides for improved quality of life. To guide the sequencing of the Development Intervention Portfolios and capital investment within the Urban Cores, a first order prioritization of these nodes was undertaken.

Multi-Criteria Analysis (MCA) is an established technique for the appraisal of multiple alternatives and was since utilized for the purposes of facilitating an objective and quantifiable prioritization process. In so doing, the following methodology was applied:

- An explicit set of principles was defined to inform and guide the prioritization framework;
- In line with these principles, a set of criteria was defined by which to characterize each of the Urban Cores, to which a relative weighting was assigned;
- A rating scale was determined to quantitatively rank the Urban Cores i.e. a numerical score on a strength of preference scale, where the more preferable the option, the higher the score.
- The framework was populated and the rating scale applied to score and rank each Urban Core.

In line with the City of Tshwane's Metropolitan Spatial Development Framework, and the guiding principles, the prioritization of the Urban Cores is based on the following principles:

- The development of a compact city: Compaction and densification are core principles of the MSDF. In line with this, the theory of the compact city underpins the prioritization framework. Compact cities are characterized by densified development patterns, public transport connectivity, and accessibility to local services and employment opportunities. For the purposes of the prioritization framework, a compact city buffer has been defined i.e. a 25km radius from the Capital Core. This radius is typically defined to ensure that public transit commute times to places of employment are limited to 20 minutes or less.
- The development of Transit Orientated precincts: In line with the principles of compaction and densification, the spatial policy outlined within the City of Tshwane's MSDF calls for Transit Orientated Development i.e. as a mechanism to develop a more compact city and as a means to optimize the potential and infrastructure capacity of nodes. The identification of potential TOD precincts has thus been identified as a critical component of the prioritization framework.
- Social upliftment: As former under serviced township areas, the Urban Cores represent areas of significant need particularly as regards the provision of, and access to, basic services and social infrastructure, a strategic objective of the City of Tshwane and an enabling component of the Development Intervention Portfolios. An understanding of current service provision within the Urban Cores is therefore central to identifying areas with the greatest need for investment.
- Capitalizing on existing spatial opportunities: In addition to identifying areas of greatest social need, the identification of areas with the greatest immediate opportunities is also considered a significant aspect of the prioritization process i.e. areas in which the development objectives of the City are readily achievable or may be expected to have the most significant impact i.e. within the constraints of limited financial resources.

See Figure 19
Prioritisation of TOD precincts

Public transport stations and interchanges play an important anchor role to many of the MSDF nodes, as these stations and interchanges increase the accessibility and walkability of these areas.

Given this elevated level of accessibility / walkability, areas surrounding transit stations (referred to as Transit Orientated Development Nodes) are similarly considered to be key nodal areas within the Urban Network Structure of the City of Tshwane i.e. they may also be considered as areas for focused infrastructure investment to support and facilitate increased land-use intensity, densification, economic development and growth and thus are eligible for DIPs preparation. It is therefore important to prioritise the different public transport-focused nodes / TOD precincts in order to determine where the DIPs process should focus next.

The principles and methodology used to prioritise the Urban Cores were similarly applied to determine the prioritisation of the respective Phase 1 IRPTN TOD Precincts. In so doing, the following criteria were similarly used to structure the prioritisation framework:

- People;
- Access to basic services;
- Movement and connectivity;
- Housing;
- Land development opportunities;
- Relationship with the CBD i.e. contribution to a compact city; and in addition

Integration opportunities with the urban cores, metropolitan nodes, specialised nodes and mayoral priority areas.

Precinct Planning and Management

Following on the identification of prioritised areas for intervention, and with consideration of the City's transformation agenda and priority spatial development strategies, spatial planning concepts have been identified to guide capital investment within the City.

See Figure 20

A spatial capital investment-targeting map has since been generated which depicts these concepts in relation to priority investment areas. In so doing, this map indicates where capital investment should be focussed to achieve the desire outcomes envisaged in the Tshwane Vision 2055, the MSDF and the RSDF documents.

Intended outcomes of the spatial strategy of applying the above principles within the spatial context are:

- Improved service delivery through impactful infrastructure investment in strategically located areas of the city
- Reduced carbon footprint through nodal development
- Increased investment in the city through improved global liveability rating
- Reduced pressure on agricultural and conservation land though optimal use of land
- Reduced cost of living through as a result of transit-oriented development thus reducing travel time, cost and distance
- Increased options in housing typology (structure and cost), addressing various income groups and integrating various communities

- Improved quality of life for Tshwane residents through convenience of increased access to goods and services within nodal areas supported by an efficient and integrated public transport system
- Reduced cost of delivery services by facilitating the sharing of resources (public facilities, services, equipment) through nodal development.

The spatial capital investment targeting map, as well as the spatial planning concepts that underpins it will become a critical input to guide prioritised investment within the City.

Preparation of Catalytic Urban Development Projects within Integration Zones

Project Preparation

Within the context of the Package of Plans, Development Intervention Portfolios follow from the RSDF and are medium-to-long term development plans and implementation strategies that are seen to bridge the Local Spatial Development Framework and the Precinct Plan. In so doing, DIPs represent the mechanism through which projects are identified within key nodal areas, precincts and development corridors. The intention is to pro-actively structure and optimise development so as to catalyse economic investment and growth, improve the sustainability and resilience of the City, and provide its beneficiaries with inclusive and accessible opportunities within an increasingly liveable environment. In line with this, the specific objective of the DIPs is to:

- Interpret the strategic vision for the City of Tshwane (Tshwane 2055) with specific reference to the context of Mamelodi.
- In line with this vision, detail a comprehensive plan for development. The intention is that this plan build upon and consolidate the proposals of the MSDF and the RSDF, as well as any other existing development proposals emanating from previous studies.
- Identify the enabling factors required to facilitate and support development (i.e. required bulk infrastructure, transport infrastructure, social amenities etc.).
- Translate these plans into tangible projects;
- Link these proposals to targets and implementation programmes; and to
- Package the above in a form that may be used to solicit investment interest.

In so doing, the DIPs are therefore engineered to enhance the project preparation methodology of the City of Tshwane.

See Figure 21

This process ensures that the CIF and its information system (CaPS) will be fed with projects emanating from a process that has its roots in the Tshwane Vision 2055, MSDF, RSDF, Sustainable Human Settlement Plan as well as other relevant developmental strategy documents and plans. From these base documents, a consolidated Strategic Area Framework (SAF) will be developed for each of the strategically identified DIPs precincts, nodes or corridors. A gap assessment is then undertaken between the consolidated SAF and the requirements as contained in the Built Environment Performance Plans. From this gap analysis, an updated SAF is developed from which a DIPS Investment map is finally derived.

The DIPS methodology further formalises the project preparation processes by propagating a standardised methodology and framework for the documentation of project information emanating from the updated SAF. These projects will be synthesized and captured on a DIPs Project Fiche (project summary).

The benefit of having all projects captured on the prescribed Project Fiche template is that the project preparation stage, required for the project to receive meaningful priority in the CaPS system, is largely taken care of. The challenge for sustainable improvement of the City's capital programme will over time move towards the meaningful identification of new project pro-actively, rather than reactively. The DIPs process will facilitate this gradual shift towards pro-active project identification, actively seeking to address the various objectives and goals as articulated in the various strategic documents of the City, Province and National Government.

Alignment between IDP, SDF and BEPP

In terms of the Municipal Systems Act (MSA) the IDP is a single, inclusive and strategic plan for the development of the municipality which links, integrates and coordinates plans and takes into account proposals for the development of the municipality; aligns the resources and capacity of the municipality with the implementation of the plan; and forms the policy framework and general basis on which annual budgets must be based. The CoT IDP is premised on six Strategic Objectives:

- Providing sustainable services infrastructure and human settlements
- Promoting shared economic growth
- Ensuring sustainable, safer communities and integrated social development
- Promoting good governance and active citizens
- Improving financial sustainability
- Continuing institutional development, transformation and innovation.

The following factors were taken into consideration when determining Strategic Focus Areas for 2015/16:

- National service delivery agenda as outlined in the State of the Nation Address and other key government articulations,
- The achievements that have been made by the City since the beginning of the current term of Council,
- The economic climate and how it is to affect the development performance of the City, and
- The financial position of the City and a need to balance service delivery with strengthening the City's financial position

Based on the above, the City then agreed that the focus for 2015/16 f/y should be on:

- Continued service delivery through the provision of basic services and conclusion on some of the key projects and programmes initiated since the beginning of the term;
- Urban management through the maintenance of the City's key infrastructure in line with the Council approved Service Delivery Charter to bring to effect and improved responsiveness to service delivery trough regionalization;

- Continued development and operationalization of social and recreational facilities;
- Implementation of renewal energy initiatives;
- Fast tracking formalization of informal settlements; and
- Acceleration of Catalytic Projects such as the roll-out of free WIFI and A Re Yeng transport services

In terms of the MSA, one of the core components of the IDP is the Spatial Development Framework (SDF). The SDF provide spatial development directives and guidelines to address development across the city with specific spatial outcomes and spatial targeting. The aim is firstly, to address the legacy of apartheid planning, secondly provide a framework for integration of different land uses and previously segregated communities. Thirdly it unlocks land in strategically located areas for investment through specific spatial development proposals.

The Built Environment Performance Plan provides details of investment in infrastructure on both social and engineering services in the areas identified by the SDF. This includes details on required investment to support the interventions required from the spatial development perspective. In the case of the City the focus of the investment contained in the BEPP and Capital Investment Framework is on the provision of sustainable services infrastructure and human settlements. The focus is towards spatial targeting with a primary focus on the movement system as the key spatial restructuring element of the built environment. More than eighty percent of the capital budget is allocated towards the development and maintenance of water, sanitation, electricity, roads and storm water systems throughout the city. Transport has been allocated the larger part of this budget. There is a strong bias towards the development of infrastructure in the previously disadvantaged areas in the city and to eradicate the services backlog, however the investment in maintenance of key economic infrastructure to ensure economic growth is also a key focus for 2015/16 financial year.

To demonstrate this, key integration zones contained in the SDF have been identified as:

- Mabopane Urban Hub
- Atteridgeville Urban Hub
- Hammanskraal Urban Hub
- Mamelodi Urban Hub
- Ga-Rankuwa Urban Hub

The City have also identified the following areas to form part of the programme:

- Refilwe Urban Core
- Olievenhoutbosch Urban Core
- Ekangala Urban Core
- Zithobeni Urban Core

The identified spatial integration zones and the investment areas as identified in the SDF as well as the capital projects for financial year 2015/16 seek to align to the strategic objectives of the City especially around Providing sustainable services infrastructure and human settlements; Promoting shared economic growth; Ensuring sustainable, safer communities and integrated social development.

Such an alignment is demonstrated by the budget allocated towards projects for 2015/16 and to a certain degree the spatial location of these.

2015/16 IDP and SDBIP Performance Planning

2015/16 IDP Review

The following progress can be reported with regards to the 2015/2016 IDP

- The 2011/16 Council approved IDP for the Council term.
- The Strategic Objectives in the 5 year IDP and SDBIP are measured through indicators and targets and reported on quarterly and annually.
- The 2015/16 IDP has taken into consideration the Tshwane Vision 2055 Outcomes and strategic actions for the first decade of game changing.
- Measuring our long term Vision:
  - Refine the long-term indicators indicated in the Tshwane Vision 2055.
  - Develop measurable plans to support the long-term indicators to guide future planning.
  - Set baselines and standards for services developed in line with the vision and outcomes.

Linking 2016/17 Performance Plans to BEPP

The city has undertaken to refine its submission towards the proposed BEPP indicators. The City proposes an incremental approach to measuring the proposed BEPP indicators for the following reasons:

- Assess the applicability of the proposed BEPP indicators – identify which indicators can be measured in the 2016/17 IDP and SDBIP
- Segment the BEPP indicators into the City's outcomes based approach to planning and monitoring
- In cases where BEPP indicators are not reflected to the 2016/17 plans, set the baselines, develop plans and place these within the Council approved plans in 2015/16 onwards.

City of Tshwane Position of BEPP Indicators

The City of Tshwane has been part of the development of the City Support Programme indicators and through this it has provided detailed input that can ensure the measurability of these indicators. Since the BEPP indicators are no different to the CSP indicators, the process that guides the latter should be applied to the former as well.

In a letter that was sent by National Treasury to the City Manager of Tshwane, it was communicated that CSP indicators will not be a requirement for municipal spatial performance planning in the 2015/16 due to the fact that the National Treasury team is still finalising this. The impact of the process on the BEPP indicators is that they too cannot be used as a basis for spatial performance planning in this 2016/17 BEPP. Having said this, the City of Tshwane still maintains that the alignment of BEPP to CSP needs to be strengthened towards streamlined spatial performance planning and reporting to reduce duplication. By this we call for one set of indicators that satisfy both BEPP and CSP requirements

Outcomes and Outputs

Budget guidelines relating to the compilation of the 2016/17 capital budgets were compiled in consultation with the City Planning and Development Department and IDP Office. Departments used these budget guidelines as a basis for their MTREF planning. Budget indicatives were issued to departments to take into consideration and also align budget proposals to departmental business plans, objectives and targets.

All capital project requests were captured on the Capital Planning System (CaPS) in accordance with a data template, which was designed in consultation between City Planning and Development Department, Finance Department and City Strategies and Performance Management.

The outcome of the Budget Steering Committee hearings required departments to prioritise capital projects and resource allocations within the context of affordability taking into account inter alia contractual obligations, ongoing infrastructure maintenance and executive commitments.The final draft capex 16_17 incorporates the 18th March 2016 Mayoral Committee recommendations.

The compilation of the capital budget in terms of internal capacity (council funds) is based on the application of sound financial management principles in order to ensure that a funded budget is tabled.

See Figure 22

2016/17 MTREF Capital Budget by Funding Source

See Figure 23

Spatial Analysis of Capital Expenditure

Value of Capital Expenditure by Region

See Figure 24 as well as Annexure C depicting regional spatial capex analysis.

Value of Capital Expenditure by Urban Hub Area

See Figure 25

Value of Capital Expenditure by Industrial Node

See Figure 26.

Value of Capital Expenditure by Mayoral Priority See Figure 27

A comparative analysis between the 2015/16 MTREF and the 2016/17 MTREF capital budget funding sourced indicated that the capital budget funding source reliance on state and provincial grants remained constant. The following key observations can be made:

- Internally generated revenue (including Public Contributions and Donations and CRR) amounted to approximately R177 million (4,6%) in 2015/16 which reduced to R115 million (3%) in 2016/17.

- Borrowings which amounted to R1,2 billion (31,3%) in 2015/16, reduced to R 1 billion (29%) in 2016/17.

- Grant funding amounted to R2,45 billion (68%) in 2015/16 which reduced to R 2,37 billion (68%) during 2016/17.

The following with regard to conditional grants should be noted:

- Urban Settlements Development Grant (USDG)

The purpose of the USDG is to assist metropolitan municipalities to improve urban land production to the benefit of poor households, by supplementing the revenues of metropolitan municipalities to: reduce the real average cost of urban land, increase the supply of well-located land, enhance tenure security and quality of life in informal settlements, improve spatial densities and to subsidise the capital costs of acquiring land and providing basic services for poor households. The gazetted allocations amount to R 1,49billion (42,8%) for 2016/17, R 1,58 billion (42,7%) for 2017/18 and R 1,66 billion (41,6%) during 2018/19.

- Public Transport, Infrastructure and Systems Grant

The purpose of the grant is to provide for accelerated planning, construction and improvement of public and non-motorised transport infrastructure and services. The gazetted allocations amount to R 750 million (21,5%) in 20116/17, R755 million (20,4%) in 2017/18 and R760 million (19,1%) in 2018/19.

- Neighbourhood Development Partnership Grant

The purpose of this grant is to support neighbourhood development projects that provide community infrastructure and create the platform for other public and private sector development, towards improving the quality of life of residents in targeted underserviced neighbourhoods. NDPG grant allocations amounted to R 48,5 million (1,4%) in 2016/17, R44, million (1,2%) in 2017/18 and R45,3 million (1,1%) in 2018/19.

- Integrated National Electrification Programme

The purpose of this grant is to implement the Integrated National Electrification Programme (INEP) by providing capital subsidies to municipalities to address the electrification backlog of occupied residential dwellings, clinics and the installation of bulk infrastructure and rehabilitation and refurbishment of electricity infrastructure in order to improve the quality of supply. INEP grant allocations amounted to R40 million (1,1%) in 2016/17, R40 million (1,1%) in 2017/18 and R45 million (1,1%) in 2018/19.

It is evident that there are significant capital allocation fluctuations between the following departments across the three MTREF years:

- Housing and Human Settlements Department received approximately double the capex allocations during year 2 and year 3 of the MTREF versus the year 1 allocation.

- The year 3 capital allocation for the Roads and Stormwater Department decreases significantly in the third MTREF year, to allow for large capital allocations to Housing and Human Settlements and Water and Sanitation departments.

- Water and Sanitation increases by more than double during the third financial year, whereas year 1 and year 2 capital allocations are consistent around the R400 million mark.

The majority of the capital budget is allocated to a number of key infrastructure departments focussing on creating economic infrastructure. Transport (comprising of Airports, Public Transport and Roads and Stormwater), Services Infrastructure (comprising of Water and Sanitation and Energy and Electricity) and Housing and Human Settlements account for 75% of the 2016/17 capital budget, 84% of the 2017/18 capital budget and 88% of the 2018/19 capital budget expenditure.

This capital budget distribution is indicative of a basic service delivery focussed budget where significant investment is being focussed on achieving a desirable built environment and urban form. The next section will focus on analysing the 2016/17 MTREF capital expenditure in terms of the spatial transformation agenda of the city, particularly with regards to the Capital Investment Targeting areas (emanating from the Capital Investment Framework report) as well as the spatial development focus areas highlighted in the Metropolitan Spatial Development Framework (MSDF).

The regional capital expenditure analysis was undertaken by means of the Tshwane Capital Planning system, which allows for the spatial referencing of capital projects. The CaPS system indicates that 354 projects comprise the 2016/2017 MTREF capital budget, of which a 302 (85,3%) of the projects are spatially reference.

The expenditure analysis indicates that approximately R227 million (6,5%) of the 2016/17 MTREF capital budget is spent City Wide or on Operational Capex, whereas the remainder of the budget is distributed over the various regions . Region 1, 2, 3 and 6 receive the majority of the capital expenditure, accounting for approximately 80% of the capital expenditure. Region 1 receives the highest capital budget allocation at 22,6%, following by Region 2 at 20,9% and Region 6 at 20,6% capital expenditure.

The mayoral priority projects are articulated annually as part of the State of the City (SOCA) address. The 2016/17 MTREF capital budget expenditure analysis was undertaken in relation to the following mayoral priority projects:

- A Re Yeng Phase1

- African Gateway

- Government Boulevard
- Symbio City
- Theatre Time Square
- East Capital
- West Capital

Asset Management

This table brings together the core financial elements of asset management and summarises the capital programme in terms of new assets and the renewal of existing assets. The objective is to provide a complete picture of the municipality's asset management strategy, indicating the resources being deployed for maintaining and renewing existing assets, as well as the extent of asset expansion.

Budget Dimension	2016/2017	2017/2018	2018/2019
Capex - new	R2 934 744 263	R3 449 904 551	R3 834 719 457
Capex - renewal	R549 801 169	R253 508 527	R152 039 792
Total	R3 484 545 432	R3 703 413 078	R3 986 759 249

Budget Dimension	2016/2017	2017/2018	2018/2019
Capex - new	84%	93%	96%
Capex - renewal	16%	7%	4%
Total	100%	100%	100%

In terms of MFMA Circulars 55 and 66 at least 40% of the Capital Budget must be allocated towards renewal of existing assets. From the above table it can be seen that 16%, 7% and 4% of the budget has been allocated for the renewal of existing assets in the 2016/17, 2017/18 and 2018/19 financial years respectively.

A.1.1 *Other Initiatives in the Funding Strategy*

The following other funding initiatives form part of the City of Tshwane funding strategy:

- Besides the traditional sources of funding, the City's funding strategy is to, on selected projects fund them through
  - Public private partnerships (Tshwane House)
  - Private investments (West Capital Development and Rainbow Junction)
- The City has capped its cost of capital at <11% and will not accept any loans priced above that.
- The minimum tenor for long term borrowings for the City is pegged at >20years
- The City is in the process of moving away from borrowing from commercial banks and get its funding through Development Finance Institutions (DFIs), because DFIs are much cheaper than commercial banks. The City is currently in talks with the following DFIs:
  - Development Bank of Southern Africa (DBSA)
  - European Investment Bank (EIB)
  - French Development Agency (AFD)
  - Danish Development Agency (DANIDA)

5. COMMENTS OF THE STAKEHOLDER DEPARTMENTS

5.1 COMMENTS OF THE GROUP CHIEF FINANCIAL OFFICER

None

5.2 COMMENTS OF THE GROUP LEGAL COUNSEL

None

6. IMPLICATIONS

6.1 HUMAN RESOURCES

Not applicable

6.2 FINANCES

Implications for Capital Budget 2016/17.

6.3 CONSTITUTIONAL AND LEGAL FACTORS

Compliance with DORA and MSA and other relevant legislation including SPLUMA.

6.4 COMMUNICATION

Not applicable

6.5 PREVIOUS COUNCIL OR MAYORAL COMMITTEE RESOLUTIONS

Approval of draft BEPP 2016/17 in October 2015.

7. CONCLUSION

The BEPP 2016/17 is presented for approval for submission to National Treasury in line with DORA requirements.

The Mayoral Committee on 18 May 2016 resolved to recommend to Council as set out below:

ANNEXURES:

A. BEPP_Review_v0.03.docx - BEPP 2016/17
B. BEPP 2016/17 Figures
C. Projects per Region Maps

RESOLVED:

That the Built Environment Performance Plan 2016/17 be approved and submitted to National Treasury.